

2016

Exploration of the “larval pool”: development and ground-truthing of a larval transport model off leeward Hawai‘i

Wren, JLK, Kobayashi, DR

[2016] PeerJ 4:e1636; DOI 10.7717/peerj.1636

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0062341>

2015

Characterizing a foraging hotspot for short-finned pilot whales and Blainville's beaked whales located off the west side of Hawaii Island using tagging and oceanographic data

Abecassis M, Polovina J, Baird RW, Copeland A, Drazen JC, Domokos R, Oleson E, Jia Y, Schorr GS, Webster DL, Andrerws RD

[2015] PLoS ONE 10(11): e0142628. doi:10.1371/journal.pone.0142628

<http://dx.doi.org/10.1371/journal.pone.0142628>

Variation in phytoplankton composition between two North Pacific front zones along 158 degrees west during winter-spring 2008-2011

Howell EA, Bograd SJ, Hoover AL, Seki MP, Polovina JJ

[2015] Progress in Oceanography 2015. DOI: 10.1016/j.pocean.2015.06.003

[View Abstract](#)

Calibration of acoustic instruments

Demer DA, Berger L, Bernasconi M, Bethke E, Boswell K, Chu D, Domokos R, et al.

[2015] ICES Cooperative Research Report No. 326, 133 p

Two takes on the ecosystem impacts of climate change and fishing: Comparing a size-based and a species-based ecosystem model in the central North Pacific

Woodworth-Jefcoats PA, Polovina JJ, Howell EA, Blanchard JL

[2015] Progress in Oceanography. DOI: 10.1016/j.pocean.2015.04.004

[View Abstract](#)

The Transition Zone Chlorophyll Front updated: advances from a decade of research

Polovina JJ, Howell EA, Kobayashi DR, Seki MP

[2015] Progress in Oceanography. DOI: 10.1016/j.pocean.2015.01.006 (In Press)

[View Abstract](#) Download (2.5 MB PDF)

Optimization of a micronekton model with acoustic data

Lehodey P, Conchon A, Senina I, Domokos R, Calmettes B, Jouanno J, Hernandez O, Kloster R

[2015] ICES Journal of Marine Science. DOI: 10.1093/icesjms/fsu233

[View Abstract](#)

Enhancing the TurtleWatch product for leatherback sea turtles, a dynamic habitat model for ecosystem-based management

Howell E, Hoover A, Benson SR, Bailey H, Polovina JJ, Seminoff JA, Dutton PH

[2015] *Fisheries Oceanography* 24(1): 57-68. DOI: 10.1111/fog.12092

[View Abstract](#)

2014

The fate of fisheries oceanography: Introduction to the special issue

Bograd SJ, Hazen EL, Howell EA, Hollowed AB

[2014] *Oceanography* 27(4): 21-25. DOI: 10.5670/oceanog.2014.83

[View Abstract](#) [Download \(0.4 MB PDF\)](#)

"Going with the flow" or not: evidence of positive rheotaxis in oceanic juvenile loggerhead turtles (*Caretta caretta*) in the South Pacific Ocean using satellite tags and ocean circulation data

Kobayashi DR, Farman R, Polovina JJ, Parker DM, Rice MH, Balazs G

[2014] *PLoS ONE* 9(8): e103701. DOI: 10.1371/journal.pone.0103701

[View Abstract](#) [Download \(4.1 MB PDF\)](#)

Hawai'i and U.S. Affiliated Pacific Islands. Chapter 23

Leong, J.-A., J. J. Marra, M. L. Finucane, T. Giambelluca, M. Merrifield, S. E. Miller, J. B. Polovina, E. Shea, M. Burkett, J. Campbell, P. Lefale, F. Lipschultz, L. Loope, D. Spooner, and Wang, 2014: IN: *Climate Change Impacts in the United States: The Third National Climate Assessment*, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 537-556.

doi:10.7930/J0W66HPM.

[View Article](#) [Download](#)

Open Ocean Systems. Chapter 13

Polovina, J., J. A. Hobday, J. A. Koslow, V. Saba. 2014.

In Marine ecosystem-based management. *The Sea* Vol 16. M. Fogarty and J. J. McCarthy (eds.) Harvard Univ. Press 552 pp.

2013

A model of loggerhead sea turtle (*Caretta caretta*) habitat and movement in the oceanic North Pacific

Abecassis M, Senina I, Lehodey P, Gaspar P, Parker D, Balazs G, Polovina J

[2013] *PLoS ONE* 8(9): e73274. DOI: 10.1371/journal.pone.0073274

[View Abstract](#) [Download \(11.9 MB PDF\)](#)

Persistent spatial patterns of recruitment in a guild of Hawaiian coral reef fishes

DeMartini EE, Wren JLK, Kobayashi DR

[2013] *Marine Ecology Progress Series* 485: 165-179. DOI: 10.3354/meps10306

[View Abstract](#)

Mesophotic coral ecosystems - potential candidates as essential fish habitat and habitat areas of particular concern.

Blyth-Skyrme VJ, Rooney JJ, Parrish FA, Boland RC

[2013] *Pacific Islands Fisheries Science Center Administrative Report H-13-02*, 53 p

[Download \(9.5 MB PDF\)](#)

Fishery-induced changes in the subtropical Pacific pelagic ecosystem size structure: observations and theory

Polovina JJ, Woodworth-Jefcoats PA

[2013] *PLoS ONE* 8(4): e62341. DOI: [10.1371/journal.pone.0062341](https://doi.org/10.1371/journal.pone.0062341)

[View Abstract](#) [Download \(0.4 MB PDF\)](#)

Ecosystem size structure response to 21st century climate projection: large fish abundance decreases in the central North Pacific and increases in the California Current

Woodworth-Jefcoats PA, Polovina JJ, Dunne JP, Blanchard JL

[2012] *Global Change Biology* 19(3): 724-733. DOI: [10.1111/gcb.12076](https://doi.org/10.1111/gcb.12076)

[View Abstract](#)

2012

Vertically migrating micronekton and macrozooplankton communities around Guam and the Northern Mariana Islands

Suntsov A, Domokos R

[2013] *Deep-Sea Research I* 71: 113-129. DOI: [10.1016/j.dsr.2012.10.009](https://doi.org/10.1016/j.dsr.2012.10.009)

[View Abstract](#)

Relative influence of climate variability and direct anthropogenic impact on a sub-tropical Pacific top predator, the Hawaiian monk seal

Baker JD, Howell EA, Polovina JJ

[2012] *Marine Ecology Progress Series* 469: 175-189. DOI: [10.3354/meps09987](https://doi.org/10.3354/meps09987)

[View Abstract](#) [Download \(0.6 MB PDF\)](#)

Reevaluation of the DPS designation for Hawaiian (now main Hawaiian Islands) insular false killer whales

Oleson EM, Boggs CH, Forney KA, Hanson MB, Kobayashi DR, Taylor BL, Wade PR, Ylitalo GM

[2012] *Pacific Islands Fisheries Science Center, PIFSC Internal Report, IR-12-038*, 39 p

[Download \(1.1 MB PDF\)](#)

Bumphead parrotfish (*Bolbometopon muricatum*) status review

Kobayashi D, Friedlander A, Grimes C, Nichols R, Zgliczynski B

[2011] U.S. Dept. of Commerce, NOAA Technical Memorandum NOAA-TM-NMFS-PIFSC-26, 101 p. + Appendices
[Download \(6.9 MB PDF\)](#)

Climate-induced primary productivity change and fishing impacts on the Central North Pacific ecosystem and Hawaii-based pelagic longline fishery

Howell EA, Wabnitz CCC, Dunne JP, Polovina JJ

[2012] *Climatic Change* 119(1): 79-83. DOI: [10.1007/s10584-012-0597-z](https://doi.org/10.1007/s10584-012-0597-z)

[View Abstract](#) [Download \(0.3 MB PDF\)](#)

Evidence for behavioural thermoregulation by the world's largest fish

Thums M, Meekan M, Stevens J, Wilson S, Polovina J

[2012] *Journal of the Royal Society Interface* 10(78) 20120477. DOI: [10.1098/rsif.2012.0477](https://doi.org/10.1098/rsif.2012.0477)

[View Abstract](#)

Prediction of mesophotic coral distributions in the Au'au Channel, Hawaii.

Costa BM, Kendall MS, Rooney J, Chow M, Lecky J, Parrish FA, Montgomery A, Boland RC, Spalding H

[2012] U.S. Dept. of Commerce, NOAA Technical Memorandum NOS NCCOS 149, 44 p. Prepared by the NCCOS Center for Coastal Monitoring and Assessment Biogeography Branch. Silver Spring, MD

[Download \(31.6 MB PDF\)](#)

Declines in phytoplankton cell size in the subtropical oceans estimated from satellite remotely-sensed temperature and chlorophyll, 1998-2007

Polovina JJ, Woodworth PA

[2012] *Deep-Sea Research II* 77-80: 82-88. DOI: [10.1016/j.dsr2.2012.04.006](https://doi.org/10.1016/j.dsr2.2012.04.006)

[View Abstract](#) [Download \(0.2 MB PDF\)](#)

Modeling swordfish daytime vertical habitat in the North Pacific Ocean from pop-up archival tags

Abecassis M, Dewar H, Hawn D, Polovina J

[2012] *Marine Ecology Progress Series* 452: 219-236. DOI: [10.3354/meps09583](https://doi.org/10.3354/meps09583)

[View Abstract](#)

Climate change impacts on marine ecosystems

Doney SC, Ruckelshaus M, Duffy JE, Barry JP, Chan F, English CA, Galindo HM, Grebmeier JM, Hollowed AB, Knowlton N, Polovina J, Rabalais NN, Sydeman WJ, Talley LD

[2012] *Annual Review of Marine Science* 4:11-37

2011

Estimating the carrying capacity of French Frigate Shoals for the endangered Hawaiian monk seal using Ecopath and Ecosim

Parrish FA, Howell EA, Antonelis GA, Iverson SJ, Litnan CL, Parrish JD, Polovina JJ
[2012] *Marine Mammal Science* 28(3): 522-541. DOI: 10.1111/j.1748-7692.2011.00502.x
[View Abstract](#) [Download \(0.4 MB PDF\)](#)

Eddies as offshore foraging grounds for melon-headed whales

Woodworth PA, Schorr GS, Baird RW, Webster DL, McSweeney DJ, Hanson MB, Andrews RD, Polovina JJ
[2012] *Marine Mammal Science* 28(3): 638-647. DOI: 10.1111/j.1748-7692.2011.00509.x
[View Abstract](#) [Download \(0.8 MB PDF\)](#)

Towards operational management of pelagic ecosystems

Lehodey P, Senina I, Calmettes B, Royer F, Gaspar P, Abecassis M, Polovina J, Parker D, Domokos R, Hernandez O, Dessert M, Kloser R, Young J, Lutavage M, Handegard NO, Hampton J
[2010] *ICES CM 2010; A:04*
[Download \(0.9 MB PDF\)](#)

What's the catch? Patterns of cetacean bycatch and depredation in Hawaii-based pelagic longline fisheries

Forney KA, Kobayashi DR, Johnston DW, Marchetti JA, Marsik MG
[2011] *Marine Ecology* 32(3): 380-391. DOI: 10.1111/j.1439-0485.2011.00454.x
[View Abstract](#)

Calculating acceptable biological catch for stocks that have reliable catch data only (Only Reliable Catch Stocks - ORCS)

Berkson J, Barbieri L, Cadin S, Cass-Calay S, Crone P, Dorn M, FRiess C, Kobayashi D, Miller TJ, Patrick WS, Pautzke S, Ralston S, Trianni M
[2011] *U.S. Dept. of Commerce, NOAA Technical Memorandum NOAA-TM-NMFS-SEFSC-616*, 44 p
[Download \(2.8 MB PDF\)](#)

On North Pacific circulation and associated marine debris concentration

Howell EA, Bograd SJ, Morishige C, Seki MP, Polovina JJ
[2012] *Marine Pollution Bulletin* 65: 16-22. DOI: 10.1016/j.marpolbul.2011.04.034
[View Abstract](#)

Projected expansion of the subtropical biome and contraction of the temperate and equatorial upwelling biomes in the North Pacific under global warming

Polovina JJ, Dunne JP, Woodworth PA, Howell EA
[2011] *ICES Journal of Marine Science* DOI: 10.1093/icesjms/fsq198
[View Abstract](#)

Loggerhead turtle (*Caretta caretta*) movement off the coast of Taiwan: characterization of a hotspot in the East China Sea and investigation of mesoscale eddies

Kobayashi DR, Cheng IJ, Parker DM, Polovina JJ, Kamezaki N, Balazs GH

[2011] *ICES Journal of Marine Science*. DOI: 10.1093/icesjms/fsq185

[View Abstract](#)

Genetic analyses and simulations of larval dispersal reveal distinct populations and directional connectivity across the range of the Hawaiian grouper (*Epinephelus quernus*)

Rivera MAJ, Andrews KR, Kobayashi DR, Wren JLK, Kelley C, Roderick GK, Toonen RJ

[2011] *Journal of Marine Biology Volume 2011, Article ID 765353, 11 p.* DOI: 10.1155/2011/765353

[View Abstract](#) [Download \(1.2 MB PDF\)](#)

Application of the SEAPODYM model to swordfish in the Pacific Ocean

Abecassis M, Lehodey P, Senina I, Polovina J, Calmettes B, Williams P

[2011] *Paper presented at the 7th Regular Session of the Scientific Committee, Western and Central Pacific Fisheries Commission, 9-17 August 2011, Pohnpei, Federated States of Micronesia, WCPFC-SC7-2011/EB-IP-07. Pacific Islands Fisheries Science Center, PIFSC Working Paper, WP-11-011, 23 p*

[Download \(1.7 MB PDF\)](#)

Micronekton abundance and biomass in Hawaiian waters as influenced by seamounts, eddies, and the moon

Original Research Article

Deep Sea Research Part I: Oceanographic Research Papers, Volume 58, Issue 5, May 2011, Pages 557-566

Jeffrey C. Drazen, Lisa G. De Forest, Reka Domokos

2010

Using productivity and susceptibility indices to assess the vulnerability of United States fish stocks to overfishing

Patrick WS, Spencer P, Link J, Cope J, Field J, Kobayashi D, Lawson P, Gedamke T, Cortes E, Ormseth O, Bigelow K, Overholtz W

[2010] *Fishery Bulletin 108(3): 305-322*

[Download \(0.7 MB PDF\)](#)

Spatiotemporal variability in bigeye tuna (*Thunnus obesus*) dive behavior in the central North Pacific Ocean

Howell EA, Hawn DR, Polovina JJ

[2010] *Progress in Oceanography* 86: 81-93. DOI: 10.1016/j.pocean.2010.04.013

[View Abstract](#)

Oceanographic influences on the dive behavior of juvenile loggerhead turtles (*Caretta caretta*) in the North Pacific Ocean

Howell EA, Dutton PH, Polovina JJ, Bailey H, Parker DM, Balazs GH

[2010] *Marine Biology* 157(5): 1011-1026. DOI: 10.1007/s00227-009-1381-0

[View Abstract](#)

Report of the 2nd National Ecosystem Modeling Workshop (NEMoW II)

Link JS, Ihde TF, Townsend HM, Osgood KE, Schirripa MJ, Kobayashi DR, Gaichas S, Field JC, Levin PS, Aydin KY, Harvey CJ (eds.)

[2010] U.S. Dept. of Commerce, NOAA Technical Memorandum NOAA-TM-NMFS-F/SPO-102, 78 p

[Download \(0.3 MB PDF\)](#)

Growth validation of gold coral *Gerardia* sp. in the Hawaiian Archipelago

Parrish FA, Roark EB

[2009] *Marine Ecology Progress Series* 397: 163-172

2009

Environmental effects on forage and longline fishery performance for albacore (*Thunnus alalunga*) in the American Samoa Exclusive Economic Zone

Domokos R

[2009] *Fisheries Oceanography* 18(6): 419-438

[Download \(1.2 MB PDF\)](#)

Use of productivity and susceptibility indices to determine stock vulnerability, with example applications to six U.S. fisheries

Patrick WS, Spencer P, Ormseth O, Cope J, Field J, Kobayashi D, Gedamke T, Cortes E, Bigelow K, Overholtz W, Link J, Lawson P

[2009] U.S. Dept. of Commerce, NOAA Technical Memorandum NOAA-TM-NMFS-F/SPO-101, 90 p

[Download \(1.6 MB PDF\)](#)

Increases in the relative abundance of mid-trophic level fishes concurrent with declines in apex predators in the subtropical North Pacific, 1996-2006

Polovina JJ, Abecassis M, Howell EA, Woodworth P

[2009] *Fishery Bulletin* 107(4): 523-531

[Download \(0.4 MB PDF\)](#)

Connectivity and integrated ecosystem studies

Friedlander A, Kobayashi D, Bowen B, Meyers D, Papastamatiou Y, DeMartini E, Parrish F, Treml E, Currin C, Hilting A, Weiss J, Kelley C, O'Conner R, Parke M, Clark R, Toonen R, Wedding L
[2009] In: Friedlander A, Keller K, Wedding L, Clarke A, Monaco M (eds.). *A marine biogeographic assessment of the Northwestern Hawaiian Islands, Chapter 9*, pp. 291-330. NOAA Technical Memorandum NOS NCCOS 84. Prepared by NCCOS's Biogeography Branch in cooperation with the Office of National Marine Sanctuaries Papahanaumokuakea Marine National Monument, Silver Spring, MD, 363 p
Download (27.3 MB PDF)

Satellite-based horizontal and vertical habitat estimation for loggerhead turtles (*Caretta caretta*) and bigeye tuna (*Thunnus obesus*) in the North Pacific Ocean
Howell EA
[2009] Thesis (Ph.D.). Hokkaido University, Japan, 156 p
Download (11.5 MB PDF)

Reducing seabird bycatch in the Hawaii longline tuna fishery
Gilman E, Kobayashi D, Chaloupka M
[2008] *Endangered Species Research* 5: 309-323
Download (1.0 MB PDF)

Evidence for cranial endothermy in the opah (*Lampris guttatus*)
Runcie RM, Dewar H, Hawn DR, Frank LR, Dickson KA
[2009] *Journal of Experimental Biology* 212(4): 461-470

Spatial connectivity of Pacific insular species: Insights from modeling and tagging
Kobayashi DR
[2008] Thesis (Ph.D.). Dept. of Environmental Sciences, University of Technology, Sydney. 220 p
Download (6.0 MB PDF)

The Galapagos spiny lobster fishery
Bustamante R, Reck G, Ruttenberg B, Polovina J
[2008] In: Phillips B and Kittaka J (eds.). *Spiny Lobsters: Fisheries and Culture*, 2nd ed. Blackwell Science Ltd, Oxford, UK. DOI: 10.1002/9780470698808.ch12
View Abstract

2008
Comprehensive evaluation of shallow reef fish populations at French Frigate Shoals and Midway Atoll, Northwestern Hawaiian Islands (1992/93, 1995-2000)
DeMartini EE, Parrish FA, Boland RC
[2002] U.S. Dept. of Commerce, NOAA Technical Memorandum NOAA-TM-NMFS-SWFSC-347, 54 p. + Appendices

[Download \(34.4 MB PDF\)](#)

Biology of coral reefs in the Northwestern Hawaiian Islands

Grigg RW, Polovina J, Friedlander AM, Rohmann SO

[2008] In: Riegl BM and Dodge RE (eds.). *Coral reefs of the USA. Coral reefs of the world 1.* New York: Springer. Ch. 14: pp. 573-594